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**PREDICTIVE POWER OF SELF-EFFICACY, FAMILIARITY  
WITH TRAINING CONTENT ON JOB PERFORMANCE:  
MODERATING EFFECT OF TRAINING EFFECTIVENESS  
IN OMAN'S HIGHER EDUCATION INSTITUTIONS**

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**ABSTRACT**

The higher education institutions (HEIs) in Oman have witnessed rapid development over the last decade; and yet, the quality of their training programs programmes has not yielded the anticipated results. The desired outcome, which failed to meet expectations, pertains to the effectiveness of these programs in enhancing employee job performance. This study aims to investigate the influence of self-efficacy, trainee familiarity with training content and employees' performance in Oman's higher education sector. Additionally, the study explores the moderating effect of training effectiveness on employee's performance. The researcher examined 184 academics as well as administrative employees that participated in a training program sponsored by Takatuf, a consulting firm responsible for assessing, training, and developing employees in Oman. Results

indicated that self-efficacy and familiarity with training content contribute to high employee job performance in the country's HEIs, confirming the significant moderating role of training effectiveness in this relationship. Furthermore, the study suggests two implications for human resource practices. First, it is crucial for managers to provide comprehensive training-related information aimed at increasing self-efficacy before the actual training program. Second, HR managers and individuals can jointly improve the performance effectiveness by creating suitable methods for fostering self-efficacy. The findings suggest that organizations can enhance job performance and reduce turnover intention intentions by improving the effectiveness of training programs for employees. There is limited research linking self-efficacy, training effectiveness, and job performance in HEIs, particularly within member countries of the Gulf Cooperation Council (GCC). This research contributes to the expansion of theoretical and managerial doctrines regarding the relationships among the identified variables. Therefore, this research represents a unique attempt to determine the effectiveness of training programs in HEIs grappling with transitional challenges.

**Keywords:** Self-efficacy, training effectiveness, training content, job performance, higher education institutions, Oman.

## INTRODUCTION

Globally, organizations expend over one hundred and twenty-six billion dollars annually on employee training and development (Abd Rahman et al., 2013; Aguinis & Kraiger, 2009; Paradise, 2007). It costs approximately 1,296 US dollars to train an employee annually, or nearly 4.5 percent of the employee's monthly payroll (Association of Talent Development [ATD], 2018). Yet, many organizations have failed to effectively implement training programmes (Ma et al., 2021). A training program is a planned package with a mixture of activities intended to furnish employees with knowledge as well as skills to make them better in their profession. Effective training program is the measurement of the impact on a trainee's knowledge, skills, and performance. It can also be referred to as the organization's return on investment. While significant numbers of organizations worldwide have increased their investment in training, there are mounting

concerns over training standards and the effectiveness of training outcomes (Oman, 2012) with concerns raised about the low-quality of training in Oman (Al-Harthi, et al., 2022). Majority of the workforce has little opportunity to undergo the needed training to enhance their expertise. Therefore, implemented a national strategy to train and sustain a significant portion of the unskilled workforce. Despite these great efforts, there is a widening gap in the quality and effectiveness of training programs, with widespread challenges in integrating training content subjects.

Training alone is inadequate to achieve the expected improvement in work performance because not all of the knowledge achieved during the time of the training program can be successfully applied and transferred to the job. Social learning theory (SLT) argues that an individual's self-efficacy significantly affects training effectiveness and how their jobs and goals are achieved (Bandura, 1995). Because people are social beings and depend on one another to find solutions to issues affecting their work performance (Bandura, 1986). People with a strong sense of self-efficacy achieve greater attention in the activities they were involved in, form a stronger sense of commitment, recuperate rapidly from poor performance setbacks, and view challenging problems as tasks to be mastered (Bandura, 1992; Ma et al., 2021). Bandura argued that confidence in individual effectiveness affects decisions, consistency of their performance, persistence, and level of motivation. Hence, self-efficacy is central to effectively changing employees job performance (Roczniowska et al., 2020; Armenakis et al., 2007; Lathabhavan, & Griffiths, 2023). However, the impact of self-efficacy on job performance is not constantly positive; rather, it is neutral or even negative, it relies on contextual elements across settings (Beck & Schmidt, 2018).

While self-efficacy both positively and negatively affects job performance, the results of some research (De Clercq et al., 2018; Miraglia et al., 2017) provided a clear understanding of how employees' self-efficacy indirectly impacts their job performance through a moderating method. Inadequate consideration of the contextual factors can lead to overestimation of the result hence, there is need to explore further, self-efficacy contribution to employees' job performance in the education, psychology, and business sectors (Kundu, 2020; Liu et al., 2022; Ma et al., 2021).

This study is one of the first to determine the effectiveness of training programmes in higher education institutions (HEIs) in Oman, an area that has yet to receive the research attention it deserves. The new research model currently proposed by this study will significantly add value to the knowledge of education planners, particularly the policymakers in Oman, who need to evaluate the effectiveness of the training programs. Although research on self-efficacy is not new, the situational impact on employee job performance in the HEIs in the country is not well-explored. Second, findings on self-efficacy and job performance are inconsistent (De Clercq et al., 2018; Miraglia et al., 2017; Wu et al., 2023). Third, the management literature has neglected familiarity with training content and its impact on employees' job performance (Chukwu, 2016; Kodwani & Kodwani, 2021). This study fills those gaps in the literature. Moreover, the antecedents to training effectiveness and job outcome have been examined previously, emphasizing the importance of elements of training attitude that have either not received research attention or provided inconsistent results by previous researchers (Kodwani & Kodwani, 2021). However, there is a scarcity of research examining training effectiveness as a moderating variable on employee job performance, especially in the service sector (Clauss et al., 2021; Tønnessen et al., 2021). Other researchers have also recommended an urgent need to understand how training effectiveness strengthens the self-efficacy-job performance relationship (Gopalan et al., 2022; Han et al., 2023; Kodwani & Kodwani, 2021). In this way, the author contributes to the limited stream of moderation mechanisms underlying self-efficacy, training content, and employee job performance. Hence, the present research draws from a dual-type perspective, adding both theoretical and practical value to the management literature. Considering the above-mentioned research gap, the objective of this study is to determine the predictive effect of self-efficacy, training content, and training effectiveness on employee performance. Since training is beneficial to both employers and employees, the personal and job factors such as individual familiarity with training content and self-efficacy as antecedents remained unclear and needed to be explored (Bellmann & Hubler, 2020).

Exploring self-efficacy is a theory-driven process (Wu et. al. 2023). Employees will not be motivated to act in times of difficulty unless they are certain that their action will have the desired outcomes (Wu et

al., 2023). Training effectiveness plays a significant moderating role, as it directly impacts the return on training investment. Organizational resources and employees' efforts may go to waste if training programmes are not effectively evaluated (Akther & Rahman, 2021). Bandura's social learning theory serves as the theoretical framework for this study, describing a link between classical learning theory and cognitive approaches (Akther & Rahman, 2022). The present study contributes to Bandura's social learning theory by examining self-efficacy and employees' familiarity with training content on job performance, specifically focusing on the moderating effect of training effectiveness.

## **LITERATURE REVIEW**

### **Self-Efficacy**

Self-efficacy is a subset of Bandura's (1986) social cognitive theory. According to this theory, peers influence observers' job performance (Bandura, 1977) through self-efficacy, which is defined as people's belief in their individual ability to control activities affecting their lives (Bandura, 1986). Self-efficacy is associated with an individual's confidence in organizing and executing actions required for completing specific tasks (Bandura, 1997; Wood & Bandura, 1989). It reflects employees' attitudes towards completing work tasks to the best of their abilities (Memon et al., 2019), which is fundamental as employees often play multiple roles, including critic, learner, and mentor in their jobs (Ma et al., 2021).

Self-efficacy can be divided into two related, though dissimilar concepts: general self-efficacy and task self-efficacy. General self-efficacy assesses an individual's fundamental capability to effectively complete general job requirements, while task self-efficacy estimates an individual's specific capacity to fulfil task requirements effectively (Stajkovic & Luthans, 1998). Both general and task self-efficacy have an effect on employees job performance (June & Mahmood, 2011).

Trainees need to demonstrate a desire to learn as training progresses, as employees with higher cognitive ability and basic skills are more trainable (Talukder & Ahmed, 2012). Armenakis et al. (2007) argued that training promotes general self-efficacy, yet

their review highlights a lack of specific attention to the impact of self-efficacy on employees job performance. Low self-efficacy generates negative feelings about an individual's capabilities and responsibility for job performance (Memon et al., 2019).

There is a significant positive effect between self-efficacy, organizational cultural factors, and organizational commitment. Self-efficacy plays a significant mediating role in both direct and indirect impacts on organizational commitment (Mahesar et al., 2020). Lathabhavan and Griffiths (2023) found a significant impact of self-efficacy on employee performance during the COVID-19 epidemic. Similarly, Ozyilmaz et al. (2018) and Tzur et al. (2016) found a positive relationship between self-efficacy and job performance. Wang and Hsu (2014) asserted that self-efficacy is important for both task and role performance, and it indirectly influences individual perceptions of role expectations (Burke & Stets, 2009), as well as task, goal, and role preferences (Razek & Coyner, 2014). Individuals with higher self-efficacy demonstrate higher levels of job performance compared to those with lower self-efficacy (Bandura, 2012), particularly when facing difficulties and negative feedback, as individuals with higher levels of self-efficacy remain steadfast in their goals (Bandura, 1997).

However, it is noteworthy that self-efficacy can also have a negative impact on job performance in certain situations (Vancouver et al., 2008). Despite this, there is a general understanding that self-efficacy can influence job performance (Bandura, 2015; Vancouver & Purl, 2017), particularly in certain conditions. Sitzmann and Yeo (2013) found a significant positive impact of self-efficacy on an employee's job performance when the trajectory of job performance is positive.

Considering the above arguments, the present study expects self-efficacy to positively influence job performance. Therefore, the first hypothesis is as follows:

H<sub>1</sub>: Self-efficacy will have a significant positive influence on employees' performance.

### **Familiarity with Training Content**

Training leads to lasting cognitive and behavioural transformations while fostering essential expertise for job performance (Talukder &

Ahmed, 2012). Providing potential participants with comprehensive information about the training content beforehand is critical (Kodwani & Kodwani, 2021). This step not only enhances the effectiveness of training programs but also helps to mitigate any biases that participants may hold regarding the program prior to its commencement. Effective training content encompasses clear communication from trainers, concise instructions, and practical applications of the training concepts (Ghosh et al., 2011). Familiarity with the content enhances various critical aspects of training effectiveness (Kodwani & Kodwani, 2021). The knowledge trainees have about the trainer or the training program significantly influences their pre-training inspiration and, consequently, the effectiveness of the training program.

Therefore, organizations must understand the prerequisites for delivering interactive content before selecting a platform (Ganiyu et al., 2022). In a study involving 506 SMEs sectors in Ghana, Ahmad and Ahmad (2021) found that training content significantly correlates with managerial effectiveness, attributing managerial training challenges to the content of training designs. Similarly, Gegenfurtner et al. (2020) argued that the success or failure of any training program hinges on its content, design, and delivery methods. Thus, training content should be tailored to enhance productivity. Consequently, having access to the necessary content can enhance managerial effectiveness (Atiase et al., 2023).

The effectiveness of trainers who design as well as deliver the training content is key to deciding the overall return on training investment (Galbraith, 1998). Insufficient information about the training program among trainees can tarnish its reputation, influence attitudes, and impact the quality of the training program (Kodwani & Kodwani, 2021). However, despite the importance of familiarity with training content and its impact on training outcomes, this aspect has been overlooked in management literature (Chukwu, 2016; Kodwani & Kodwani, 2021). Therefore, it is crucial to align training programs with organizational objectives (Ganiyu et al., 2022). Ultimately, for training to effectively achieve its desired objectives, the content of the training is a critical element in human resource development (Ghosh et al., 2011). Furthermore, the content must be user-friendly to enhance training effectiveness (Ganiyu et al., 2022), as pre-training motivation plays a crucial role in influencing the effectiveness of

training (Rowold, 2007). Accordingly, the hypothesis of this study is as follows:

H<sub>2</sub>: Familiarity with training content positively influences employee job performance.

### **Training Effectiveness**

Studies on training effectiveness have gained researchers attention in the past decades. The basis for conducting any training program is its effectiveness because it determines the return on investment (Holton & Baldwin, 2000). Therefore, numerous researchers have sought to investigate various elements that could potentially enhance training effectiveness (Al-Swidi & Yahya, 2017; Chiaburu & Tekleab, 2005; Kodwani, 2017; Nikandrou et al., 2009; Sitzmann & Weinhardt, 2019). Gil et al. (2023) view training effectiveness as an evaluation of its impact on knowledge, skills, and job performance. Job performance can thus be considered the fundamental measure of training effectiveness (Gil et al., 2023). It can be defined as the extent to which training objectives are met, including the transfer of acquired knowledge, skills, behaviors, and attitudes to the work environment (Vermeulen & Admiraal, 2009).

The primary objective of any training program is to positively impact employees' new knowledge, skills, abilities, behaviors, or attitudes. Effective training leads to higher employee job performance, satisfaction, increased team morale, and a better return on investment. Effective training programs have been shown to enhance the creativity of employees (Somsing & Belbaly, 2017), advances innovation (Carbery & Garavan, 2005), contribute to developing competitive advantage (Birdthistle, 2006), and facilitate organizational change (Scheeres & Rhodes, 2006). Trainees must bring the acquired knowledge, skills, behaviors, and attitudes back to the work environment for training to be effective (Velada & Caetano, 2007; Vermeulen & Admiraal, 2009).

Kodwani and Kodwani (2021) found that the effectiveness of training significantly affects affective commitment and enhances employees' dedication to the organization. Additionally, effective managerial training contributes to the effective execution of business functions (Nikitina et. al., 2020). Developing employee knowledge and skills

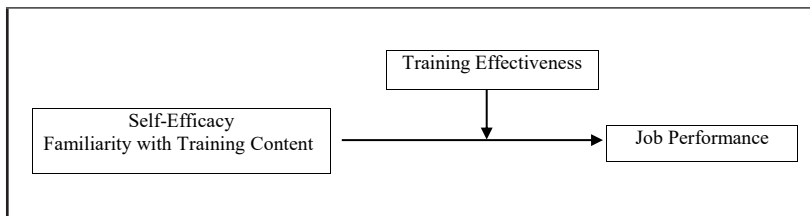


significantly impacts their job performance (Manna & Biswas, 2018). Training effectiveness affects pre-training, training, and post-training outcomes (Manna & Biswas, 2018). Despite researchers examining various factors to improve organizational training effectiveness, such as those mentioned previously (Al-Swidi & Yahya, 2017; Kodwani, 2017; Sitzmann & Weinhardt, 2019), the effectiveness of training remains relatively under-addressed (Gopalan et al., 2022). Trainees may also occasionally excessively assess or under-access a training program due to absent-mindedness (Manna & Biswas, 2018). The insufficient empirical research on training effectiveness underscores the need for further exploration in this area (Andrews et al., 2016). This leads to the study hypothesis:

H<sub>3</sub>: Training effectiveness moderates the impact of self-efficacy and familiarity with training content on employee job performance.

## Figure 1

### *Hypotheses Graphically Presented*



## METHODOLOGY

The present study adopts a quantitative approach based on cross-sectional data. A cross-sectional research design facilitates examining the relationship between two constructs at a particular point in time. The researcher employed a random sampling technique to provide all participants with an equal opportunity to participate in the study. Nine private HEIs in the Sultanate of Oman participated in the training program sponsored by Takatuf. 584 participants attended the training program focused on “accelerating HR impact on business performance.” The study sampled 184 academic and administrative staff, and 162 responses were returned, yielding a response rate of

88.04%. The respondents were assured of the confidentiality of their responses.

The average age of the respondents was thirty-four years, with thirty eight percent male and sixty two percent female respondents. On average, respondents had six years of work experience. After cleaning and screening the data, seven respondents were excluded due to incomplete responses, leaving a total of 155 valid cases for analysis. According to Hair et al. (2019), a sample size exceeding 250 has a significant effect on statistical significance. Additionally, a sample size of 155 meets the rule of thumb outlined by Combs (2010).

### **Survey Procedure**

Takatuf conducts a series of training programs for both academic and administrative staff throughout the year. Most of these training programs lasted for three-hour sessions over a period of three days. This study focuses on both academic and administrative staff who participated in these three-day training sessions in batches, with similar training content delivered to all trainees. The training programs centred around “accelerating HR impact on business performance.”

This study first administered questionnaires prior to the training program, in a classroom environment before the trainer arrived at the venue, after securing approval from the program organizer. Participants registered before attending the training program, and data collection occurred in stages aligned with the structure of the training program. The initial survey measured self-efficacy as well as training content based on the program’s design and was conducted before the training program commenced. The second stage was administered upon completion of the training program, collecting data on training effectiveness with job performance. The survey was conducted face-to-face between January 2023 and April 2023.

To ensure continuity and accuracy, participants’ contact information was collected during the initial survey. An English language survey was used to gather participants’ responses. Prior to administering the full-scale survey, a pilot study was conducted to assess the feasibility of the research. The reliability of the questionnaire was confirmed using Cronbach’s alpha ( $\alpha$ ), with all items scoring above the acceptable

range of 0.60 (Hair et al., 2019). University professors were consulted to validate the items' validity before proceeding with the main data collection.

Adhering to ethical research standards, the questionnaire was administered to respondents with a clear statement of the research objectives on the cover page, followed by assurance of their voluntary participation.

## **Measures**

The questionnaire includes socio-demographic factors and scales designed to assess self-efficacy, familiarity with training content, training effectiveness, and employee performance. The respondents indicated their level of acceptance to the five-point Likert-type scale.

The present study assessed self-efficacy using eight questions developed by (Noe & Wilk, 1993), which have been validated in previous research and demonstrated reliability with a Cronbach's alpha of 0.83 and above (Tai, 2006; Runhaar et al., 2010; Akther & Rahman, 2022). Five items were used to measure training effectiveness (Xiao, 1996; Fecteau et al., 1995), validated by Kodwani and Prashar (2019), Kodwani and Kodwani (2021), and Kodwani (2017) with satisfactory internal consistency of 0.789 and above. Familiarity with training content was assessed with three items (Learning Transfer System Inventory (LTSI; Holton, Bates et al., 2000). The items have high internal consistency of 0.85 (Holton et al., 2000; Alvelos et al., 2015). Six items were used to measure employee job performance adapted (Jelinek et al., 2006), previously validated to achieve high internal consistency, ranging from 0.8 (Mohd Isa et al., 2016).

All items were carefully selected and validated from previous research to align with the objectives of this study. No control variables were included, as they would not impact the study's objectives. Control variables are often overemphasized in research, despite lacking structural interpretation (Hünernmund & Louw, 2020). Valid controls are typically associated with other overlooked factors, making their marginal influences uninterpretable from a causal inference perspective (Westreich & Greenland, 2013; Keele et al., 2020). Past

researchers have cautioned against attaching excessive importance to control variables and advised disregarding them when interpreting results (Hünermund & Louw, 2020).

## **RESULTS**

To mitigate potential method bias, this study performed Harman's one-factor analysis. Principal Component Analysis was carried out through SPSS to examine the total extracted variance. The single factor in this study accounted for 33.2769% of the total variance. According to Chang et al. (2010), Common Method Variance occurs if the total variance extracted by one factor is more than 50%. Hence, the CMV result of this study is less than the recommended 50% threshold, as such, this study data does not have CMB issues. The means, standard deviations, inter-correlations and Cronbach alpha reliabilities of self-efficacy, training effectiveness and employee job performance is are represented in Table 1. Training effectiveness is associated to self-efficacy ( $r = 0.26, p < 0.04$ ), and job performance ( $r = 0.23, p < 0.04$ ), and familiarity with the training content. Moreover, self-efficacy and training content have a significant impact on job performance respectively ( $r = 0.44, p < 0.01$ ).

To achieve the objective of the study, the study adopted a multiple regression analysis. The results presented in Table 2 revealed that training effectiveness positively influenced employees' job performance ( $b = 0.25, t = 2.27, p = 0.03$ ). The effect of self-efficacy, familiarity with training content on employee performance was also found to be positive ( $b = 0.46, t = 4.72, p = 0.00$ ). Therefore, both self-efficacy and trainee familiarity with the training content have a significant positive impact on employee job performance.

The mean, a measure of central tendency, indicates the average value of a distribution of figures. The average scores of the elements are 96.7, 43.18, 12.18, 61.2, etc. The highest mean indicates that the majority of respondents agreed on the variable, while the lowest scores indicate the stability of ideas regarding the variable. The variables exhibit internal consistency with training effectiveness (0.93), self-efficacy (0.85), familiarity with training content (0.73), and job performance (0.87).

**Table 1**

*Means, Standard Deviations, and Inter-correlations among Study Variables*

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
Gender	96.7										
Age	43.18	11.07	0.2*								
Academic	12.18	8.79	0.14	0.51**							
Admin	61.2		0.18	0.26*	0.28**						
Work experience (Years)	56.8		0.18	0.49**	0.34**	0.37**					
Training effectiveness	3.74	0.61	0.08	0.02	0.04	0.08	0.13	(0.93)			
Self-efficacy	3.63	0.68	0.30**	0.19	0.04	0.03	0.26*	0.28	(0.85)		
Familiarity with training Content	2.35	0.78	0.14	0.06	0.13	0.08	0.05	0.13	0.31**	(0.73)	
Job Performance	3.83	0.68	0.02	0.12	0.06	0.02	0.05	0.23*	0.46**	0.02	(0.87)

Notes: Cronbach's alpha in brackets on the diagonal; \*p < 0.05; \*\*p < 0.01

The multiple regression result is shown in Tables 1 as well as 2. Self-efficacy, training content have been found to positively influence employees job performance. The statistically significant variables were valued at a level of  $p < 0.05$ . The overall variance explained was 0.452, meaning Self-efficacy, training content explained 45.2% of the variation in employees job performance. Consequently, the regression model sufficiently fitted the data and substantially elucidated 45.2% of the changes in employees' performance ( $R^2$  45.2%,  $p < 0.05$ ). Additionally, to test whether training effectiveness, together with trainee familiarity with the training content and self-efficacy, affects job performance, a moderation analysis was conducted (see Table 3).

The direct effect of self-efficacy and training content was regressed against employees performance. Training effectiveness (a moderating variable) was regressed against job performance to determine whether the moderator has a significant direct effect on job performance. Thereafter, both self-efficacy and familiarity with training content and training effectiveness were regressed against job performance. When self-efficacy and familiarity with training content were first regressed in model one, the Model was found to be significant at (Sig. F change =0.000,  $R^2$  = 0.459,  $p < 0.000$ ). The moderating

effect of training effectiveness was introduced in model two to determine whether the moderator has a significant direct effect on job performance. When training effectiveness was introduced in model two, the variance explained increased. The overall regression model was significant (Sig. F change =0.000,  $R^2 = 0.468$ ,  $p < 0.000$ ). The results are illustrated in Table 2. When the interaction effect was entered, a rise in R square was detected. The interaction reported an additional variance of 46.8% in job performance. Results presented in Table 3 showed that training effectiveness moderates employees' self-efficacy and employee performance relationship ( $R^2 = 0.04$ ,  $p = 0.05$ ). It was observed that training effectiveness has a significant effect on employees performance, the hypothesis is accepted.

**Table 2**

*Multiple Regression Analyses on Job Performance*

Variables	beta
Self-efficacy	0.29*
Training effectiveness	0.46**
Familiarity with the training content	0.24*

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

**Table 3**

*Results of the Interaction Effect between Training Effectiveness, Training Content and Self-efficacy on Job Performance*

Variable	Coefficient
Gender	0.37
Age	0.00
Academic	0.00
Administrative	0.15
Work experience	0.02
Training effectiveness	0.23
Self-efficacy	0.34**
Familiarity with training content	0.18*
Training effectiveness X self-efficacy	0.41*
Training effectiveness X training content	0.38*
Model summary	R square = 0.32**

Analysing Figure 2, the relationship between self-efficacy, training content and employees' performance was significantly positive when training effectiveness is perceived as high (simple slope test; effect = 0.53,  $t = 2.64$ ,  $p = 0.01$ ); the relationship was not significant when training effectiveness is low (simple slope test; effect = -0.08,  $t = -0.43$ ,  $p = 0.67$ ). This indicated that employees who are effective in training reported higher levels of job performance compared to others who reported lower level of success in training.

**Table 4**

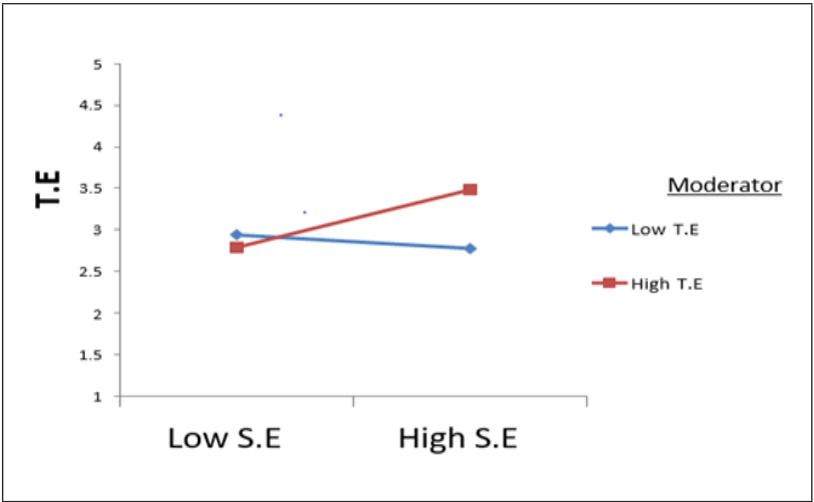
*Effect of Training Effectiveness on High Job Performance at Values of Self-efficacy and Familiarity with Training Content*

Training Effectiveness	Effect
Low	0.07
Medium	0.23
High	0.54**

Note: \*\* $p < 0.01$

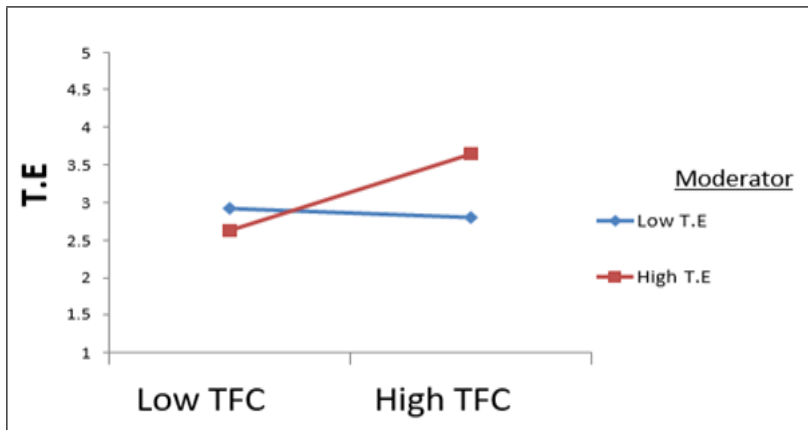
**Figure 2**

*Training Effectiveness Moderates the Impact of Self-efficacy on Employees Performance*



**Figure 3**

*Training Effectiveness Moderates the Impact of Familiarity with Training Content on Employees Performance*



## DISCUSSIONS

Prior studies that examined the factors such as self-efficacy and training effectiveness have essentially focused on the direct effect. Seeing the substantial cost organizations spend on training programs, it is fundamental to research the value or the success of such investments. Knowing the importance of this gap in the extant literature, the present study explored how training effectiveness moderates the impact of self-efficacy, training content on employees' performance.

The investigation yielded two noteworthy findings. First, this study hypothesized that self-efficacy as well as familiarity with training content promote employee job performance. The study revealed a positive and significant impact of self-efficacy on the job performance of employees in Oman HEIs. The results indicated that employees with higher levels of self-efficacy achieve higher job performance. This result reinforces the hypothesis of this study. Self-efficacy is key to the effectiveness of training programs in HEIs, inspiring trainee willingness to be effective in a training program as well as enabling employees to transfer the knowledge achieved during the training program to their jobs.



To meet international standards of quality training programs, HEIs must ensure that those hired to deliver training are competent and that the training content for different courses reflects international standards. This highlights the importance of self-efficacy in improving HEIs' training effectiveness as well as employees' goal achievement. HEIs must prioritize the engagement of employees who possess the skills and capacity to thrive in any given environment. To achieve the international levels of competence desired by HEIs by 2040, there is a need for increased investment in training to develop employees' ability to share knowledge, collaborate, coordinate, and support each other within HEIs. Trainees cannot fully benefit from training when the trainees lack self-efficacy. Nonetheless, even if training is suitably designed, firmly grounded in ~~on~~ employees' needs, employees may not profit from it due to a lack of self-efficacy. This underscores the critical role of trainee characteristics, such as their attitude, in the effectiveness of the training program.

The findings are consistent with previous research findings (Lathabhavan & Griffiths, 2023; Ozyilmaz et al., 2018; Tzur et al., 2016; Wang & Hsu, 2014). Individuals with a higher degree of self-efficacy report higher levels of job performance than those with lower self-efficacy (Bandura, 2012). The findings suggest a correlation between the confidence, resilience, and adaptability of employees and their capacity to respond cognitively to job demands. Negative feedback can help employees in HEIs improve their self-efficacy judgements, provided they react to it constructively. Knowing that negative feedback can signal the need to change the way employees perform their jobs, increase efforts, or improve skills. Once established, self-efficacy can help HEI employees build trust in the organization, leading to their commitment to achieving organizational goals.

Because self-efficacy influences employees' readiness to accept more responsibilities, the amount of effort they put into the job, and their determination when facing difficulties in performing effectively. In particular, employees with higher self-efficacy are more likely to set more challenging goals than employees with lower self-efficacy (Bandura, 1986). Such employees have a greater possibility of achieving better performance during training and higher motivation to utilize acquired skills on the job. Hence, self-efficacy plays a significant role in achieving job outcomes.

Furthermore, this study also revealed that training content positively affects employees' job performance in HEI. The research by Atiase et al. (2023) supports this finding, suggesting that trainees who have access to the required content can enhance managerial effectiveness. What trainees know about the training program significantly influences their pre-training motivation and subsequent job success (Kodwani & Kodwani, 2021). Therefore, it is essential to equip HEI trainees with the needed information before the training program to enhance its effectiveness.

The results indicate that the training program provided through Takatuf is effective in preparing employees to achieve better performance in the HEIs, particularly in subject and pedagogical content knowledge. To achieve higher performance, Oman HEIs' quality assurance councils are required to ensure that instructional materials, both in terms of knowledge acquisition and skills, meet the requirements of the 21st century. HEIs should provide human resources equipped with the skills and knowledge necessary to achieve desired outcomes. While HEIs are valued for their capacity to replace low-quality employees with knowledgeable, skilled employees necessary for a successful transition into high-performing organizations, there is still much to be learned in this sector.

The training content still requires better alignment with the actual responsibilities of the job. There is a need for HEIs to consider redesigning the current curriculum to meet local market demand and global practices. This would allow HEI employees to explore the requirements more deeply prior to entering the profession, thereby preparing them to better handle job duties. HEIs should also pay more attention to the content of training to meet local market needs, trainee understanding, learning abilities, and required skills for employment. Weak content will produce unskilled graduates. Therefore, it is crucial for Higher Education Institutions (HEIs) to provide trainees with training courses that not only cater to their needs but also equip them for career advancement and real-life application. This will help ensure an integrated, coherent training program that contributes to employees' personal, academic, and professional learning and development.

Training content needs to be well and logically structured, clear, and understandable for both the trainer and the trainee. HEIs need

to determine what is needed to provide interactive content before deciding on a training program. This will help bring tangible and intangible value to both the employees and the organization. Trainees are required to have a proper understanding of the training content to assist them in making decision on the ideal training program to participate in, prepare adequately before the training program, and encourage them to put in more effort during the training. Kodwani (2017) also argued that having prior knowledge decreases trainees' anxiety levels. Lack of proper understanding prior to the training program may have a negative signal about the value of the training.

Lastly, in line with the calls from Clauss et al. (2021), Tønnessen et al. (2021), Gopalan et al. (2022), Han et al. (2023), Kodwani and Kodwani (2021), Andrews et al. (2016), to examine the moderating variable of training effectiveness, this study established that training effectiveness significantly moderates the impact of self-efficacy, familiarity with training content on employees job performance in Oman HEIs. An effective training program not only facilitates the training processes but also supports trainer-friendly teaching pedagogies. Hence, it is important for HEIs to thoroughly examine the impact of the training program on graduates jobs through value-added measures.

For a training program to be effective, HEIs need to strategically advance their goals by ensuring a training program that will attract the attention of learners and make them more confident in learning. This can be achieved by giving trainees a voice in their training programs. When HEIs conduct a training program and the training is effective, job performance will be enhanced. Training effectiveness is an important job performance outcome because it values the training and focuses on increasing employees' sense of identification and belonging to the organization. Hence, training effectiveness as well as self-efficacy would enhance sustainable training outcomes for HEIs.

The result is supported by Nikitina et al. (2020), who found that successful execution of business functions is dependent on training effectiveness. The more effective a training program, the higher the employees' performance. Trainees' effectiveness in the training program will significantly affect the transfer of knowledge in HEIs. The effectiveness of a training program will not only enhance employees' job performance in HEIs but also change the behavioral patterns of employees in the workplace. When training is effectively

managed, it can help improve employees' emotional commitment to HEIs and may also signify the value the employees place on the training program.

In other words, to enhance employee job outcomes, HEIs should ensure the effectiveness of their training programs by matching their training program with employees' and management goals, understanding employees' needs, and gaining buy-in, which is critical to employees' satisfaction with the training program. Employees will be more likely to believe that HEIs want them to learn, grow, and positively impact society when their input and participation are part of the training strategy.

### **THEORETICAL IMPLICATION**

The results offer theoretical implications and contribute to past studies. Accordingly, this study has both theoretical and practical implications. Theoretically, the research unpacks a new direction for research into issues in training in HEIs, including their antecedents and consequences. The research addresses inconsistencies related to the impact of self-efficacy on job performance, responding to the calls made by previous researchers (Clauss et al., 2021; Chukwu, 2016; Kodwani & Kodwani, 2021; Gopalan et al., 2022; Tønnessen et al., 2021; Kundu, 2020; Liu et al., 2022; Ma et al., 2021).

While previous research has examined the antecedents of self-efficacy and familiarity with training content, this study underscores the importance of training effectiveness and familiarity with training content, areas that either received insufficient attention or yielded inconsistent findings. The results suggest that the effectiveness of training plays a significant moderating role in employee job performance and will persuade upcoming researchers to examine this relationship further for better generalization. Social learning theory, which underpins this study (Bandura, 1977; Bandura, 1986; Bandura, 1997; Wood & Bandura, 1989), explains the significance of the variables.

The present research furthers the understanding by demonstrating that training effectiveness is a significant interacting factor in understanding the influence of self-efficacy, training content on employees' job

performance. These results suggest that training effectiveness is fundamental to improve high employees job performance. The result is in alignment with the findings by Whysall et al. (2019) who argued that training effectiveness has a significant effect on employees' performance. In other words, training effectiveness can help to balance poor employees' performance and boost their job performance. Employees' training can be thwarted as well as ineffective in achieving the expected outcome when the training is ineffective.

Considering the limited number of rigorous empirical studies on self-efficacy and training effectiveness in organizational settings, the findings of this study represent a significant theoretical contribution. Another theoretical contribution of this research is testing the impact of familiarity with training content on employees' job performance, an under-researched area. This study identifies the influence of individual and situational factors. Certainly, while the direct effect of self-efficacy, training effectiveness, and employee job performance has been examined within the context of organizational training, the indirect impact and combination of these variables have yet to be examined, particularly in the context of HEIs.

## **PRACTICAL IMPLICATION**

From the practitioner's viewpoint, this research provides empirical evidence to support that self-efficacy, training effectiveness, and familiarity with training content have significant direct and indirect impacts on job performance. The study's findings have advanced implications for HEIs.

Firstly, HEIs must constantly invest in upgrading training infrastructure to ensure faster response time, better system accessibility, higher system dependability, flexibility, and ease of learning. By doing so, HEIs can offer up-to-date knowledge that is accurate, precise, reliable, dependable, and useful. The quality of information is determined by the self-efficacy of the employees. Therefore, trainers play a crucial role in creating training content materials that are beneficial and critical for acquiring the required knowledge.

This study's findings will assist HEIs in enforcing training-related policies. Both administrative and academic staff, particularly those

intending to develop their careers in academia, will be watchful of filling the void by evaluating their training needs. Training effectiveness has remained a global concern hence, the findings of the present research would provide an edge to HEIs to enhance employee skills and boost the capability to promote employee and management commitment to evaluate training effectiveness. Consequently, both private and public HEIs will establish vital policies to strengthen employees' proficiency and skills, increase integrity to curtail academic falsehood in day-to-day activities, as well as retain high-performing employees.

To attain the required insight and problem-solving skills, HEIs need to assess the effectiveness of their training program, including the training outcomes, the training surrounding, and the capability of the trainers regularly or systematically. Studies have revealed that self-efficacy is trainable, suggesting that the more employees are trained to believe in their ability to learn, the better their readiness to attain knowledge and the higher they have control of the program. It is also important for managers to understand that improving employee efficacy has positive organizational outcomes because efficacy makes employees accountable for the extra effort required to attain desirable goals, particularly in organizations with diverse workforces.

Additionally, self-management's effectiveness as a low-cost training intervention can be attractive to organizations with major cost concerns. The findings will assist management in evaluating the effectiveness of their training programs and implementing the most effective training strategies to address job performance challenges. Such efforts will also lead to profitable knowledge exchange among human resource managers' practices and different heads of department.

This study will strengthen HEIs to assess training effectiveness as a fundamental part of enhancing the entire training system. Organizational management must concentrate on providing support and establishing an effective training system that can quicken the implementation of the digital age. Those in charge of making decisions in the HEIs need to take action to establish new training courses and start-up plans to continually improve the training system.

## **LIMITATIONS AND FUTURE RESEARCH DIRECTION**

There are several limitations that this research should consider for this study to effectively achieve the desired outcome. These limitations and suggestions for future research can be addressed considering the following discussion.

The use of questionnaires to generate insights about self-efficacy is based on the notion that thinking about self-efficacy is within the realm of a person's self-consciousness, assuming that people are unbiased about self-presentation. However, a qualitative study with in-depth, situated explanations is required to confirm and generalize the findings of this study. While the chosen method is suitable for recognizing new theoretical concepts, further study needs to focus on situational and contextual factors.

Based on the review of current literature, which is salient in this context, we argue that training effectiveness will play a significant moderating role in enhancing self-efficacy, familiarity with training content, and employee job performance. Familiarity with training content and job performance is an under-researched area and this study has helped to address the gap. The study sample comprises employees from HEIs, which allowed the present research to address the gap in this field. However, it limits the ability to generalize to other sectors.

While cultural interaction is an individual experience, differences between private and government organizations can influence the behavior of employees across cultural situations. However, future studies are required to validate this concern. Additionally, future studies can pay attention to other sectors to identify how training effectiveness would moderate other elements affecting employee job performance.

This study only collected data once, making it impossible to draw conclusions about the impact of training content on the variables of interest. Other contextual determinants such as the workplace environment have not been examined in this study. Future studies can explore the interactive effects of these factors on employee job performance.

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## REFERENCES

- Abd Rahman, A., Imm Ng, S., Sambasivan, M., & Wong, F. (2013). Training and organizational effectiveness: Moderating role of knowledge management process. *European Journal of Training and Development*, 37(5), 472-488.
- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451-474.
- Ahmad, I., & Ahmad, S. B. (2021). Effect of managerial skills on the performance of small- and medium-sized enterprises: A case study in Pakistan. *The Journal of Asian Finance, Economics, and Business*, 8(4), 161-170.
- Akther, S., & Rahman, M. S. (2022). Investigating training effectiveness of public and private banks employees in this digital age: An empirical study. *International Journal of Manpower*, 43(2), 542-568.
- Al-Swidi, A., & Al-Yahya, M. (2017). Training transfer intention and training effectiveness: Assessing the gender differences using multi-group structural equation modelling approach. *International Journal of Organizational Analysis*, 25(5), 839-860.
- Al-Harthi, A. S., Hammad, W., Al-Seyabi, F., Al-Najjar, N., Al-Balushi, S., & Emam, M. (2022). Evaluating the effectiveness of teacher education in Oman: A multiple case study of multiple stakeholders. *Quality Assurance in Education*, 30(4), 477-494.
- Atiase, V., Wang, Y., & Mahmood, S. (2023). Does managerial training increase SME managers' effectiveness? A capability development approach. *International Journal of Entrepreneurial Behavior & Research*, 29(8), 1807-1836.
- Alvelos, R., Ferreira, A. I., & Bates, R. (2015). The mediating role of social support in the evaluation of training effectiveness. *European Journal of Training and Development*, 39(6), 484-503.
- Armenakis, A., Bernerth, J. B., Pitts, J. P., & Walker, H. J. (2007). Organizational change recipients' beliefs scale: development of an instrument. *The Journal of Applied Behavioral Science*, 43(4), 481-505.



- Association of Talent Development (ATD). (2018). *State of the industry report*. <https://www.td.org/Publications/ResearchReports/2018/2018-State-of-the-Industry>
- Bandura, A. (1995). Exercise of personal and collective efficacy in changing societies. In A. Bandura, (Ed.), *Self-efficacy in changing societies*. Cambridge University.
- Bandura, A. (1992). Exercise of personal agency through the self-efficacy mechanisms. In Schwarzer, R. (Ed.), *Self-efficacy: Thought control of action*. Taylor and Francis, Washington, DC, Hemisphere.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman and Company.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Bandura, A. (1977). *Social learning theory*. Prentice Hall.
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44.
- Bandura, A. (2015). On deconstructing commentaries regarding alternative theories of self-regulation. *Journal of Management*, 41, 1025–1044.
- Beck, J.W., & Schmidt, A.M. (2018). Negative relationships between self-efficacy and performance can be adaptive: The mediating role of resource allocation. *Journal of Management*, 44(2), 555-588.
- Bellmann, L., & Hubler, O. (2020). Working from home, job satisfaction and work–life balance –robust or heterogeneous links? *International Journal of Manpower*, 4(23), 424-441.
- Birdthistle, N. (2006). Training and learning strategies of family businesses: An Irish case. *Journal of European Industrial Training*, 30(7), 550-568.
- Burke, P. J., & Stets, J. E. (2009). *Identity theory*. Oxford University Press.
- Carbery, R., & Garavan, T. N. (2005). Organisational restructuring and downsizing: Issues related to learning, training, and employability of survivors. *Journal of European Industrial Training*, 29(6), 488-508.
- Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: common method variance in international business research. *Journal of International Business Studies*, 41 (2), 178-184.
- Chiaburu, D. S., & Tekleab, A.G. (2005). Individual and contextual influences on multiple dimensions of training effectiveness. *Journal of European Industrial Training*, 29(8), 604-626.

- Chukwu, G. M. (2016). Trainer attributes as drivers of training effectiveness. *Industrial and Commercial Training*, 48(7), 367-373.
- Clauss, E., Hoppe, A., Schachler, V. & O'Shea, D. (2021). Occupational self-efficacy and work engagement as moderators in the stressor-detachment model. *Work and Stress*, 35(1), 74-92.
- Combs, J. G. (2010). Big samples and small effects let's not trade relevance and rigor for power. *Academy of Management Journal*, 53(1), 9-13.
- De Clercq, D., Haq, I. U., & Azeem, M. U. (2018). Self-efficacy to spur job performance: Roles of job-related anxiety and perceived workplace incivility. *Management Decision*, 56(4), 891-907.
- Facteau, J.D., Dobbins, G.H., Russell, J.E., Ladd, R.T., & Kudisch, J.D. (1995). The influence of general perceptions of the training environment on pre-training motivation and perceived training transfer. *Journal of Management*, 21(1), 1-25.
- Galbraith, M.W. (1998). Becoming an effective teacher of adults. In Galbraith, M.W. (Ed.), *Adult learning methods*. Krieger Publishing Company, Malabar, Florida, 3-19.
- Ganiyu, I. O., Atiku, S. O., & Van der Byl, K. (2022). An evolution of virtual training: implications for talent development in the post-pandemic period. *Development and Learning in Organizations: An International Journal*, 37(2), 10-13.
- Gil, A. J., Rodriguez-Cavides, L., & Romero-Daza, D. (2023). Analysis of training effectiveness from the perspective of managers and employees in the Colombian hospitality industry. *Industrial and Commercial Training*, 3, 346-354.
- Gegenfurtner, A., Knogler, M. & Schwab, S. (2020). Transfer interest: Measuring interest in training content and interest in training transfer. *Human Resource Development International*, 23(2), 146-167.
- Gopalan, N., Pattusamy, M. & Goodman, S. (2022). Family incivility and work-engagement: Moderated mediation model of personal resources and family-work enrichment. *Current Psychology*, 41, 7350-7361.
- Ghosh, P., Prasad Joshi, J., Satyawadi, R., Mukherjee, U., & Ranjan, R. (2011). Evaluating effectiveness of a training programme with trainee reaction. *Industrial and Commercial Training*, 43(4), 247-255.
- Han, J. W., Nguyen, T. T. M., Hua, S. M., & Pham, T. H. (2023). Organizational learning through training effectiveness: evidence from the hospitality industry in Vietnam. *The Learning Organization*, 30(5), 532-553.

- Holton, E.F. & Baldwin, T.T. (2000). Making transfer happen: an action perspective on learning transfer systems. *Advances in Developing Human Resources*, 8(2), 1-6.
- Hair, J., Page, M. & Brunsveld, N. (2019). *Essentials of business research methods* (4th ed.). Routledge, an imprint of the Taylor and Francis Group New York, NY.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Holton, E. F., Bates, R. A., & Ruona, W.E.A. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11(4), 333-360.
- Hünermund, P., & Louw, B. (2020). On the nuisance of control variables in regression analysis. *arXiv preprint arXiv:2005.10314*.
- Jelinek, R., Ahearne, M., Mathieu, J., & Schillewaert, N. (2006). A longitudinal examination of individual, organizational, and contextual factors on sales technology adoption and job performance. *Journal of Marketing Theory and Practice*, 14(1), 7-23.
- June, S., & Mahmood, R. (2011). Role ambiguity and job performance of employees in the service sector SMEs in Malaysia. *Malaysian Management Journal*, 15, 1-20.
- Keele, L., Stevenson, R. T., & Elwert, F. (2020). The causal interpretation of estimated associations in regression models. *Political Science Research and Methods*, 8(1), 1-13.
- Kodwani, A. D., & Prashar, S. (2019). Exploring the influence of pre-training factors on training effectiveness-moderating role of trainees' reaction: A study in the public sector in India. *Human Resource Development International*, 22(3), 283-304.
- Kodwani, A. D., & Kodwani, M. (2021). Exploring determinants of pre-training motivation and training effectiveness: a temporal investigation. In *Evidence-Based HRM: A Global Forum for Empirical Scholarship* 9(4), 321-337.
- Kodwani, A. D. (2017). Decoding training effectiveness: the role of organisational factors. *Journal of Workplace Learning*, 29(3), 200-216.
- Kundu, A. (2020). Toward a framework for strengthening participants' self-efficacy in online education. *Asian Association of Open Universities Journal*, 15(3), 351-370.
- Lathabhavan, R., & Griffiths, M. D. (2023). Antecedents and job outcomes from a self-efficacy perspective while working from home among professionals during the COVID-19 pandemic. *International Journal of Manpower*, 45(2), 217-236,

- Liu, S.F., Fan, Y.J., Luh, D.B. & Teng, P.S. (2022). Organizational culture: the key to improving service management in industry 4.0. *Applied Science*, (12)1, 1-23.
- Ma, J., Ollier-Malaterre, & Lu, C.Q. (2021). The impact of technostressors on work–life balance: the moderation of job self-efficacy and the mediation of emotional exhaustion. *Computers in Human Behavior*, 122, 106811.
- Manna, A., & Biswas, D. (2018). Theory of training effectiveness. *International Journal of Management, Technology and Engineering*, 8(1), 271-283.
- Mahesar, A. J., Khokhar, S., Abbasi, K. H., & Shaikh, N. (2020). Impact of self-efficacy and organizational culture on organizational commitment of bank officers. *SALU-Commerce and Economic Review*, 6(1), 131-147.
- Memon, M., Soomro, B. A., & Shah, N. (2019). Enablers of entrepreneurial self-efficacy in a developing country. *Education+ Training*, 61(6), 684-699.
- Miraglia, M., Cenciotti, R., Alessandri, G., & Borgogni, L. (2017). Translating self-efficacy in job performance over time: The role of job crafting. *Human Performance*, 30(5), 254-271.
- Mohd Isa, M. F., Ugheoke, S. O., & Wan Mohd Noor, W. S. (2016). The influence of organizational culture on employees' performance: Evidence from Oman. *Journal of Entrepreneurship and Business*, 4(2), 1-12.
- Nikandrou, I., Brinia, V., & Bereri, E. (2009). Trainee perceptions of training transfer: an empirical analysis. *Journal of European Industrial Training*, 33(3), 255-270.
- Noe, R. A., & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Journal of Applied Psychology*, 78(2), 291.
- Ńikitina, T., Lapiņa, I., Ozoliņš, M., Irbe, M. M., Priem, M., Smits, M., & Nemilentsev, M. (2020). Competences for strengthening entrepreneurial capabilities in Europe. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 62.
- Oman, S. (2012). Quality of higher education in 21st century - A case of Oman. *Journal of Educational and Instructional Studies in the World*, 2(2), 2146-7463.
- Ozyilmaz, A., Erdogan, B., & Karaeminogullari, A. (2018). Trust in organization as a moderator of the relationship between self-efficacy and workplace outcomes: A social cognitive theory-based examination. *Journal of Occupational and Organizational Psychology*, 91(1), 181-204.

- Paradise, A. (2007). *State of the industry: ASTD's annual review of trends in workplace learning and performance*. Alexandria, VA: ASTD.
- Razek, N., & Coyner, S. C. (2014). Impact of self-efficacy on Saudi students' college performance. *Academy of Educational Leadership Journal*, 18(4), 85-96.
- Runhaar, P., Sanders, K., & Yang, H. (2010). Stimulating teachers' reflection and feedback asking: An interplay of self-efficacy, learning goal orientation, and transformational leadership. *Teaching and Teacher Education*, 26(5), 1154-1161.
- Roczniewska, M., Puchalska-Kamińska, M., & Ładka-Barańska, A. (2022). Facing education reform: Change-related self-efficacy is linked to job insecurity via appraisal. *Economic and Industrial Democracy*, 43(3), 1164-1188.
- Rowold, J. (2007). The impact of personality on training-related aspects of motivation: Test of a longitudinal model. *Human Resource Development Quarterly*, 18(1), 9-31.
- Scheeres, H., & Rhodes, C. (2006). Between cultures: values, training, and identity in a manufacturing firm. *Journal of Organizational Change Management*, 19(2), 223-236.
- Sitzmann, T., & Weinhardt, J. M. (2019). Approaching evaluation from a multilevel perspective: A comprehensive analysis of the indicators of training effectiveness. *Human Resource Management Review*, 29(2), 253-269.
- Sitzmann, T., & Yeo, G. (2013). A meta-analytic investigation of the within-person self-efficacy domain: Is self-efficacy a product of past performance or a driver of future performance. *Personnel Psychology*, 66, 531-568.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124(2), 240-261. <https://doi.org/10.1037/0033-2909.124.2.240>
- Somsing, A., & Belbaly, N. A. (2017). Managerial creativity: the roles of dynamic capabilities and risk preferences. *European Management Review*, 14(4), 423-437.
- Tai, W. T. (2006). Effects of training framing, general self-efficacy, and training motivation on trainees' training effectiveness. *Personnel Review*, 35(1), 51-65.
- Talukder, A. M. H., & Ahmed, J. U. (2012). Effect of strategic determinants of training on the job performance, effectiveness and efficiency: An empirical study. *Malaysian Management Journal*, 16, 23-42.

- Tønnessen, Ø., Dhir, A. & Flaten, B.T. (2021). Digital knowledge sharing and creative performance: work from home during the COVID-19 pandemic. *Technological Forecasting and Social Change*, 170, 120866.
- Tzur, S. K., Ganzach, Y., & Pazy, A. (2016). On the positive and negative effects of self-efficacy on performance: Reward as a moderator. *Human Performance*, 29(5), 362-377.
- Tzur, S. K., Ganzach, Y., & Pazy, A. (2016). On the positive and negative effects of self-efficacy on performance: Reward as a moderator. *Human Performance*, 29(5), 362-377.
- Velada, R., & Caetano, A. (2007). Training transfer: the mediating role of perception of learning. *Journal of European Industrial Training*, 31(4), 283-296.
- Vancouver, J. B., & Purl, J. D. (2017). A computational model of self-efficacy's various effects on performance: Moving the debate forward. *Journal of Applied Psychology*, 102(4), 599– 616.
- Vancouver, J. B., More, K. M., & Yoder, R. J. (2008). Self-efficacy and resource allocation: Support for a nonmonotonic, discontinuous model. *Journal of Applied Psychology*, 93(1), 35–47. <https://doi.org/10.1037/0021-9010.93.1.35>
- Vermeulen, R., & Admiraal, W. (2009). Transfer as a two-way process: testing a model. *Journal of European Industrial Training*, 33(1), 52-68.
- Wang, S., & Hsu, I. C. (2014). The effect of role ambiguity on task performance through self-efficacy—a contingency perspective. *IEEE Transactions on Engineering Management*, 61(4), 681-689.
- Westreich, D., & Greenland, S. (2013). The table 2 fallacy: presenting and interpreting confounder and modifier coefficients. *American Journal of Epidemiology*, 177(4), 292-298.
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3), 361-384.
- Wu, H., Chen, M., & Wang, X. (2023). Linking customer mistreatment to employees' helping behaviour: a self-efficacy perspective of autonomous and dependent helping. *International Journal of Contemporary Hospitality Management*, 35(10), 3681-3702. DOI: 10.1108/IJCHM-12-2021-1491
- Xiao, J. (1996). The relationship between organizational factors and the transfer of training in the electronics industry in Shenzhen, China. *Human Resource Development Quarterly*, 7(1), 55-73.